HTC RE Companion Handheld camera disassemby

HTC RE Companion camera disassembly starting point. This will get the camera open with minimal damage, and give you some options to repair.

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INTRODUCTION

How to open an HTC RE Companion camera, so you can check for some basic faults, or dry the inside. This camera is not really made for disassembly by the looks of things, so some brute force is needed here and there.

Many of these cameras suffer breakdowns, I think mainly due to water ingress.

If you are quick, you may be able to save yours using the standard techniques such as alcohol and demineralized water.

Note this is not intended as repair manual.

You will need:

Several sharp pointed tools, such as spudgers, (very) small flat screwdrivers, small phillips screwdriver Ph00, some very thin needle like bent tools, a camera mount screw bracket.

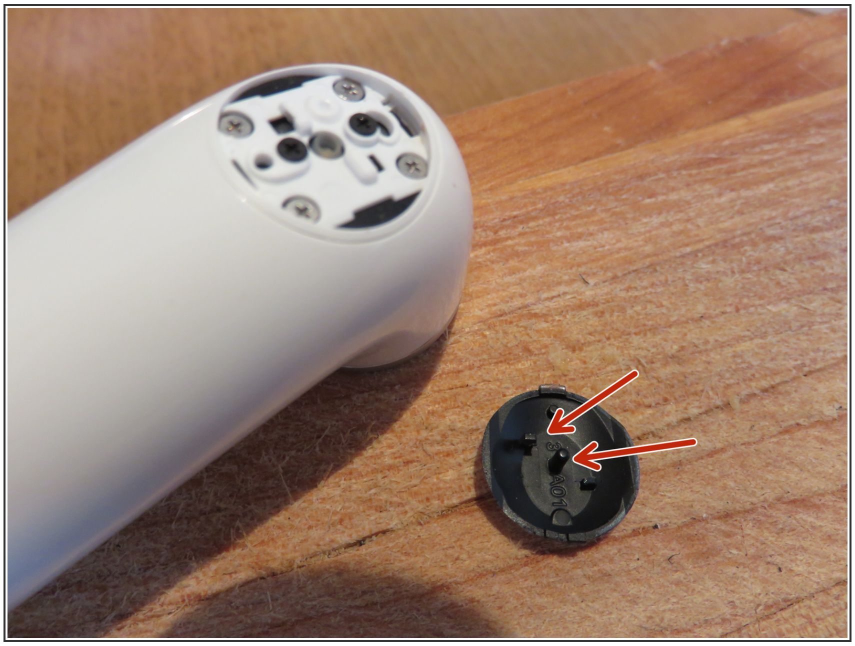
To do it right, a very long phillips screwdriver, size Ph00

Willingness to break stuff.

I have some sets of old dentist tools, which work very well for many jobs. Just ask your dentist next time for their old ones (sterilized pls, they are very sharp so easy to cut yourself). Check out the last pics.

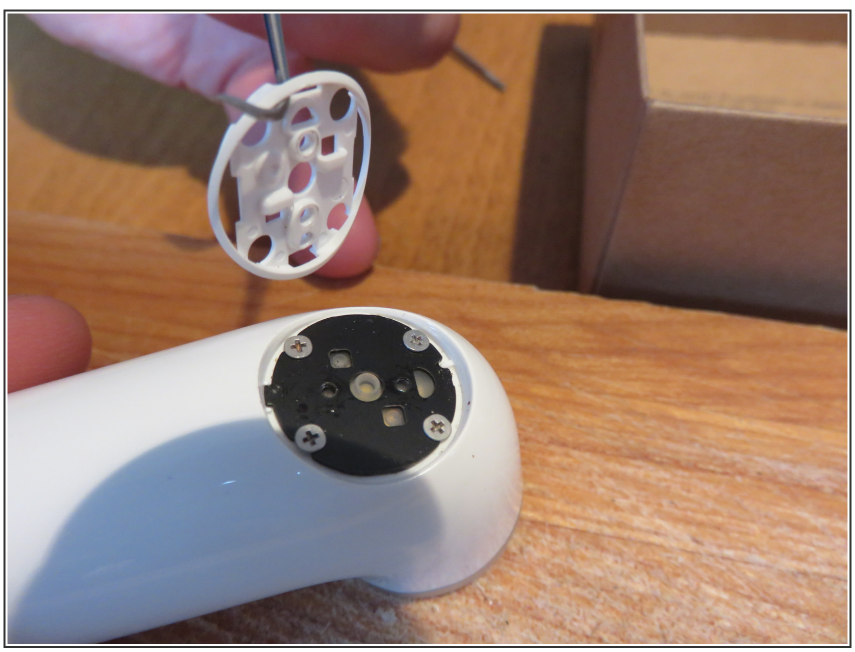
Sorry iFixit, no sales opportunities here.

Step 1 — Getting started



- The button has a little prong in the middle that has a recess, and two hooked prongs, that release when turned counter clockwise.
- To release it, be careful to avoid the extra ring you see around the button. That is part of the sealing assembly.
- Lift the button carefully with very thin flat screwdriver, or dentist tools, and pry it off while rotating counterclockwise. This shoudl be the result.

Step 2 — Button retainer



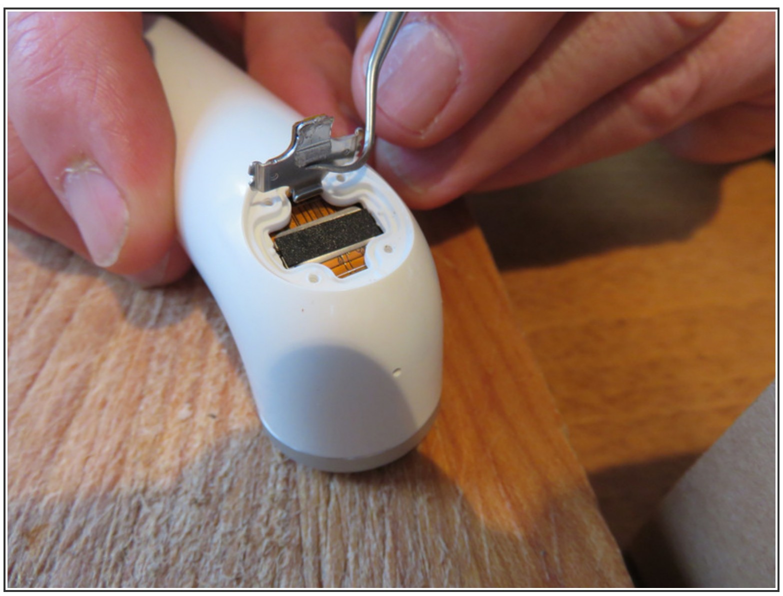
- Release 2 black screws to release the button retainer.

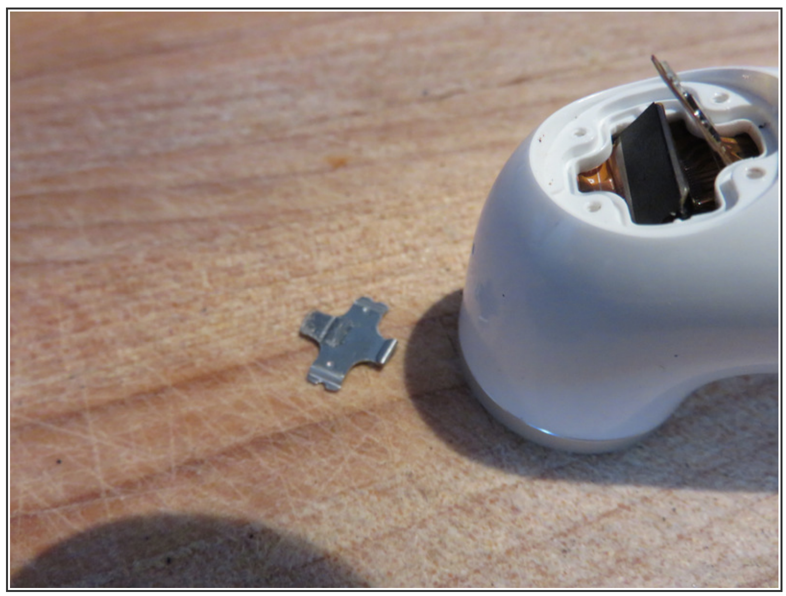
Step 3 — Remove button seal



- Remove the 4 screws that hold the sealing asembly.
- You now see the on-off button assembly.

Step 4 — Closeup of main connector.





- Here is a close-up of the switch support plate and main camera head to camera body connector.
- It's glued on to a metal cross, and needs to be carefully removed to allow the body with cable to slide out.

Step 5 — Remove metal retaining plate



- If you lift the switch, you can see the metal holding plate, and connector for the camera head below.
- Carefully pry off the metal plate without damaging the cable and switch button.
- The long body holds the battery and electronics and locks the camera head in place. So when pulling out the main assembly,, this flat cable and switch needs to be kept free to avoid damage.

Step 6 — Disconnect video head



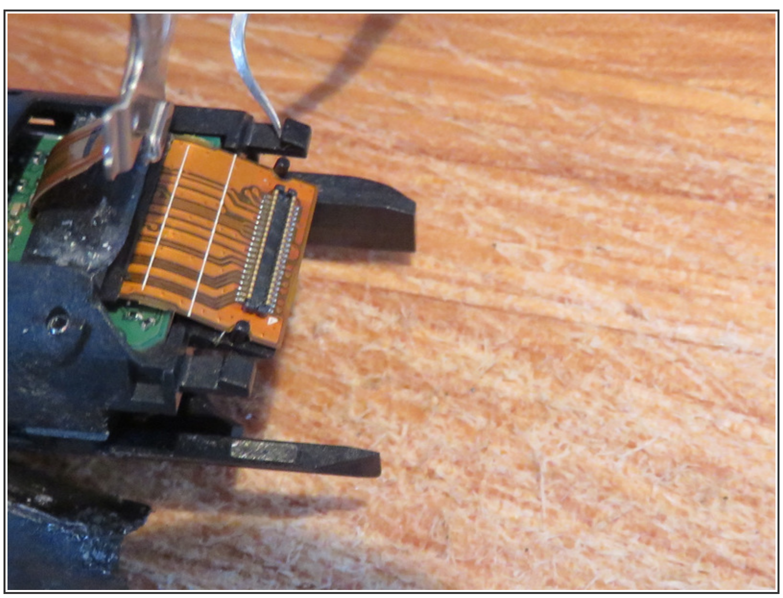
- Lift off the connector carefully, try to use non metal tool to avoid damage.
- You can see the metal plate is still on here, but easier to remove it first.
- First time for me, so the sequence of details may be off a little.

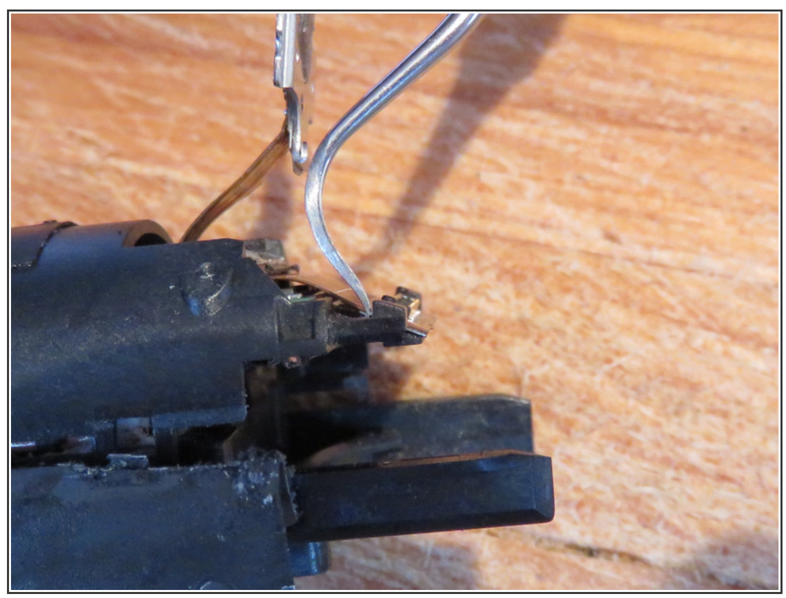
Step 7 — Get out the big tools



- Put a standard camera connection onto the bottom of the camera, so you have something to pull on.

Step 8 — The hard bit





- This is a picture from another one we sawed open. You can see the small latches that keeps the main assembly in.
- Carefully note their position compared to the connector. This will be the most difficult step to remove the main assembly.

Step 9 — If in doubt, use brute force



You need al least 3 hands. 4 is better for this step.

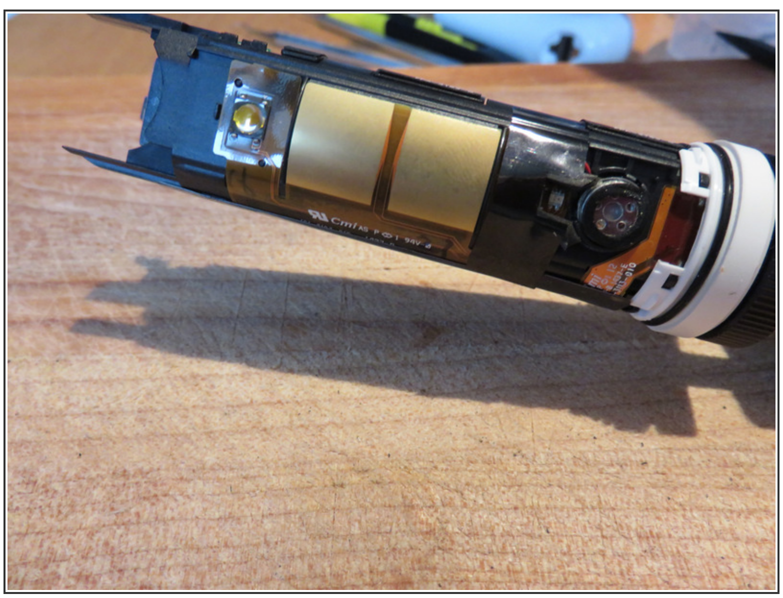
- 4 right hands are better than 4 left, unless there are lefthanded people involved. Thanks for the two hands Bro
- We also tried to push the whole assembly down, there seems to be some movement there, but then you jam it in and you cannot pull it out at the same time...
- Got fed up and just broke the two latches using my very handy dentist tools. It's kind of round the corner so hard to reach. Again be careful for the connection, but the alignment is approximately the bottom of the camera head connector.
- I don't think you can do it with a screwdriver.
- Or better, the lower third of the horizontal part of the cross. Hmm is that clear?
- The latch is just touching the body at the side of the cross shape.

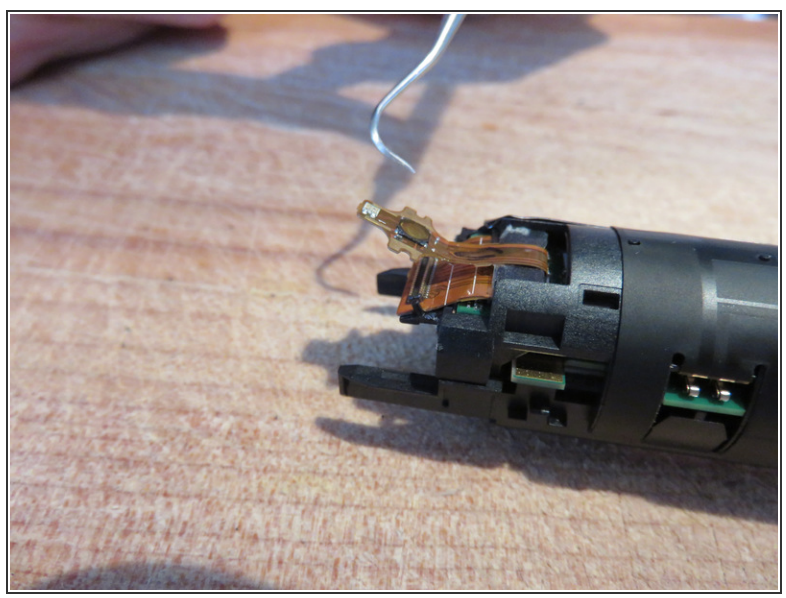
Step 10 — Open Sesame



- ⚠ Watch out for the record switch now while this slides out!
- Once the two latches were broken, constant wiggling and pulling started to show the bottom was moving.
- Careful help of wide spudger, going round and round may help.
- ⚠ Keep watching that little cable!

Step 11 — Victory





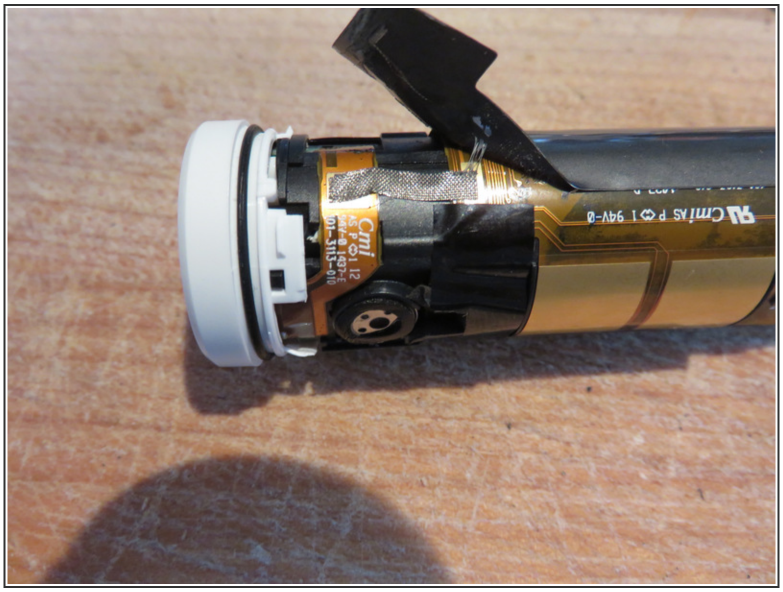
- and it is out!
- Note the broken latches.
- And the poor seal around the speaker (or is it the mic?? Did the water get in there?

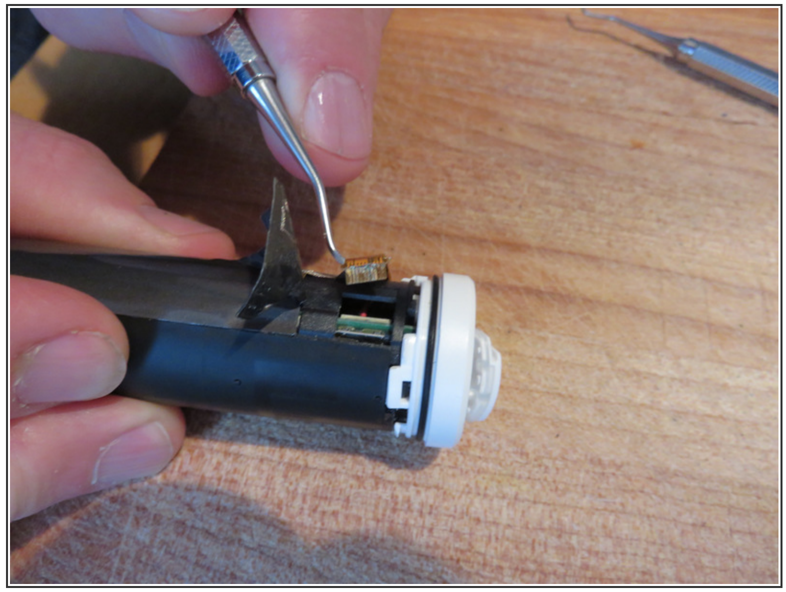
Step 12 — Bottom cap is well attached.



⚠ You can see the cap is well locked in place on the main assembly, and worse, as I discovered after breaking it.

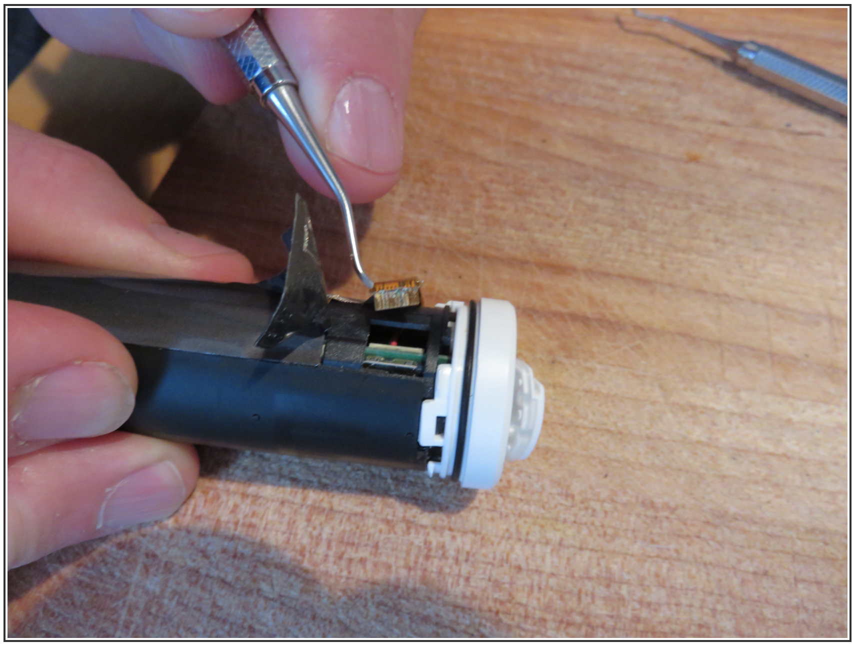
Step 13 — Power cable from USB input





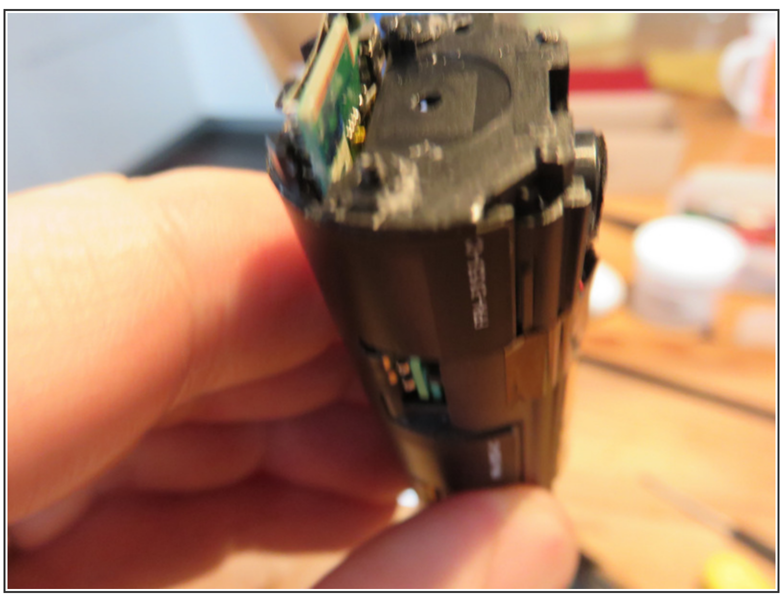
- Gently pry the tape away and pull out the connector for power.
- Watch out for the earthing strip you can see in the picture.
- Mine was full of green copper corrosion. Cleaned as best I could and re-inserted. Still very very dead, no charge light, with or without SD card, nothing.
- Second connector appears to be for the sensors that switch it on when you hold it. Did not touch.

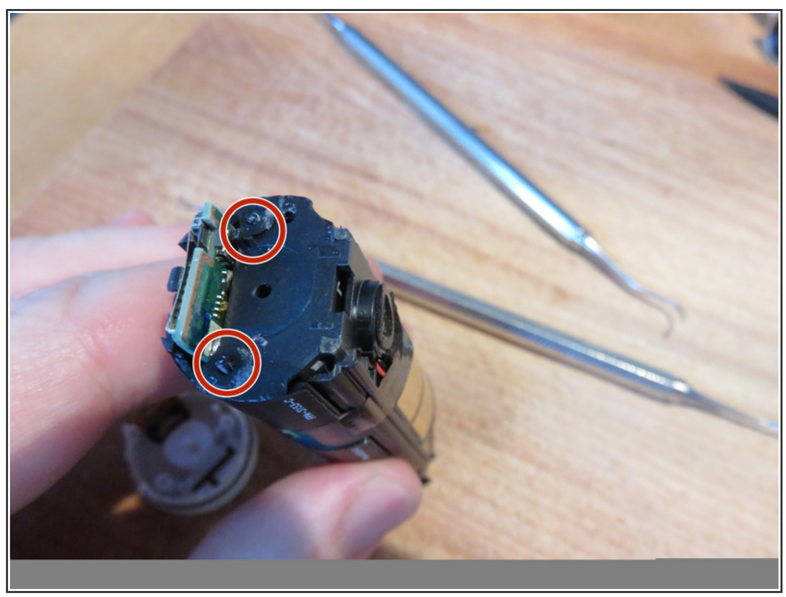
Step 14 — Bottom cap removal



- Time to get rough
- Remove the connector again in preparation to free and remove the bottom cover.
- If you do it as below, you will break stuff...
- Using force and unlatching the 3 obvious. Hmm that seems hard...
- The junk one already has the bottom cap missing, so hard to see where the issue is.

Step 15 — Why didn't someone tell me this was screwed?

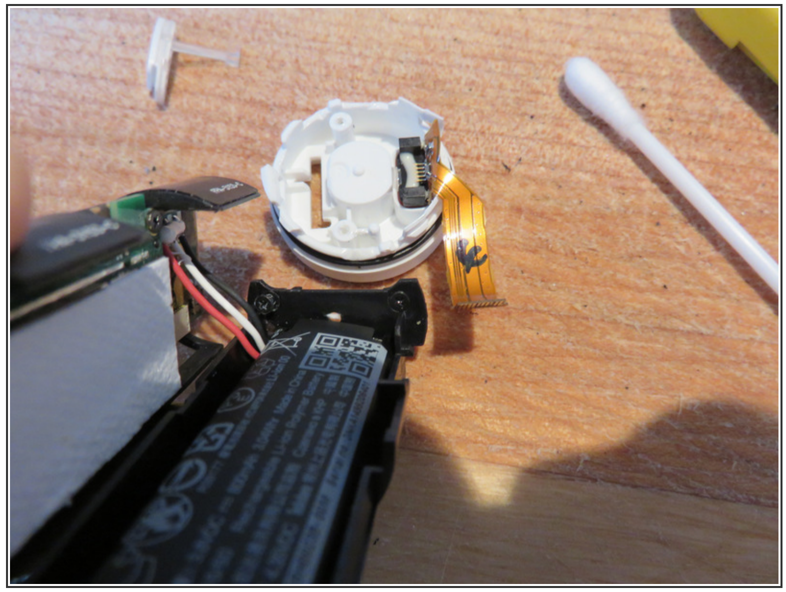




- The right way:
- Find some really long Phillips 00 screwdrivers. One side has an obvious channel to loosen one of the two screws.
- Maybe you can get to them when you have squeezed the housing open a little, but not obvious.

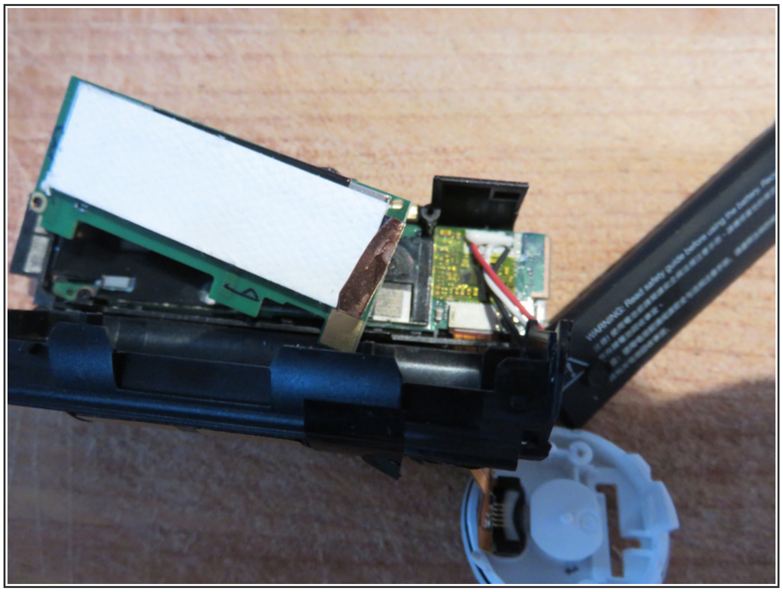
Step 16 — Top cap screw removal - seems hard with standard tools.

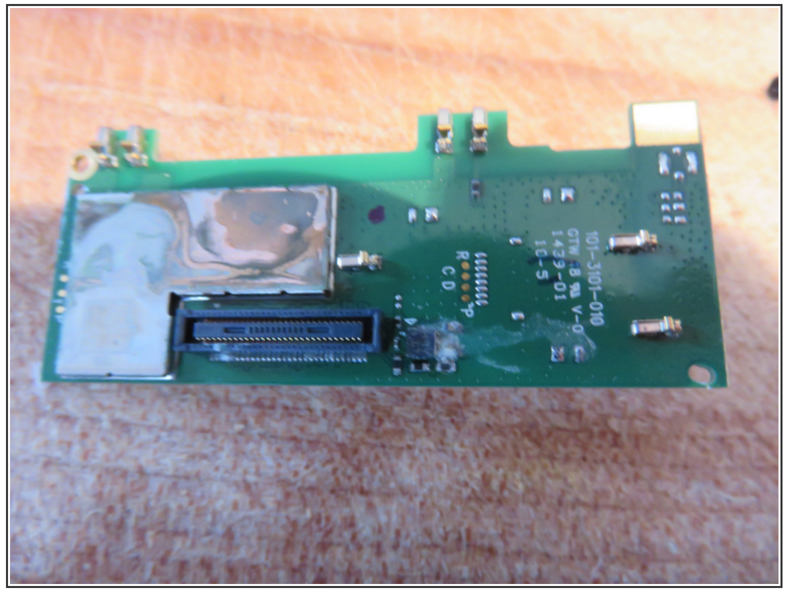




- Gently pry some more of the tape away, see also the earthing mesh connecting to the power cable.
- Open the clips on the plastic holder and the main body folds open.
- Another view on the bottom cap and the channel to get to these two key screws.
- Cleaned up some more water damage, but corrosion in too many places.

Step 17 — Pulling one of the boards off, checking for water damage.





- top board is held in with single phillips screw.
- All damaged. Water dried and corrosion present.

Step 18 — Camera head tips for the brave.



- The camera head can only come out once you have the main assembly out. The lens ring has a bajonet connection, seal and glue. Bajonet is anti clockwise to release. All it needs is about 1 mm.
- Its quite hard to get any kind of grip on it. Leave it in place if you can.
- Don't touch the 4 screws on the back of the camera head, they hold the sensor to the lens assembly.
- Here are some pics of the denstist tools I used to break the little latches and get under the button.

The HTC Re is clearly not built for repair, and I see no spares on the Internet for it.

If you have two, and want to build into one.

To reassemble your device, follow these instructions in reverse order. Add small dot of glue to put the metal cross onto the switch after the main body has been inserted and the switch is sticking out of the opening.

Put some extra glue such as hotmelt on the bottom cap, as the broken latches will make it possible for the thing to come apart.

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